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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Mark Stuart Vinton, et al.

Serial No.: 10/783,951

Filing Date: February 19, 2004

Art Unit: 2817

Title: Adaptive Hybrid Transform
for Signal Analysis and
Synthesis

August 9, 2004

Mail Stop Amendment
Commissioner of Patents
P.O. Box 1450
Alexandra, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to the duty of disclosure set forth in 37 CFR § 1.56, Applicants respectfully submit the following information disclosure statement.

The disclosed references are:

Bocchieri, et al., "Correlation Modeling of MLLR Transform Biases for Rapid HMM Adaptation to New Speakers" Proc. of IEEE International Conference on Acoustics, Speech, and Signal Processing, pp. 2343-2346, 1996.

Brandenburg, et al., "Comparison of Filterbanks for High Quality Audio Coding," IEEE Int. Sym. Circuits and Systems, May 1992, pp. 1336-1339.

Bunton, "Multi-resolution FX Correlator," ALMA Memo 447, CSIRO Telecommunications and Industrial Physics, Feb. 2003, pages 1-10.

Drygajlo, "New Fast Wavelet Packet Transform Algorithms for Frame Synchronized Speech Processing," Proc. of the 4th International Conference on Spoken Language Processing, Philadelphia, USA, pp. 410-413, October 3-6, 1996
<<<http://www.asel.udel.edu/icslp/cdrom/vol1/417/a417.pdf>>>.

Goyal, et al., "Optimal Multiple Description Transform Coding of Gaussian Vectors," Proc. IEEE Data Compression Conference 1998, pp. 388-397.

Greenberg, et al., "The Modulation Spectrogram: In Pursuit of an Invariant Representation of Speech," Int. Conf. on Acoust., Speech and Sig. Proc., Munich, 1997, vol. 3, pp. 1647-1650.

Kryze, et al., T. Appelbaum and J.C. Junqua et al. "A New Noise-Robust Subband Front-End and Its Comparison to PLP," Proc. IEEE ASRU Workshop, Keystone, Colorado, CD-ROM (1999) <<http://asru99.research.att.com/abstracts/1_6109.pdf>>.

Malvar, "Fast Progressive Image Coding without Wavelets," IEEE Data Compression Conference, Snowbird, Utah, March 2000, p. 243-252.

Nagai, et al., "Generalized Unequal Length Lapped Orthogonal Transform for Subband Image Coding," IEEE Trans. on Sig. Proc. vol. 48, no. 12, December 2000, pp. 3365-3378.

Noll, "Digital Audio for Multimedia," Proc. Sig. Proc. for Multimedia, NATO Advanced Audio Institute, 1999 <<<http://www.nue.tu-berlin.de/Publikationen/papers/nato.pdf>>>.

Painter, et al., "Perceptual Coding of Digital Audio," "Proc. of the IEEE, April 2000," pp. 451--513.

Painter, et al., "A Review of Algorithms for Perceptual Coding of Digital Audio Signals," Proceedings of International Conference on Digital Signal Processing (DSP), pp. 179-205, July 1997.

Prandoni, et al., "An FIR Cascade Structure for Adaptive Linear Prediction," IEEE Trans. on Sig. Proc., vol. 46, no. 9, Sept. 1998, pp. 2566-2571.

Princen et al., "Audio Coding With Signal Adaptive Filterbanks," Int. Conf. on Acoust., Speech and Sig. Proc., 1995, pp. 3071-3074.

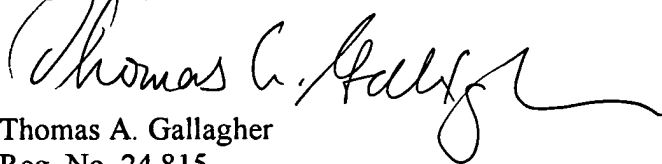
Thompson, et al., "A Non-uniform Modulation Transform for Audio Coding with Increased Time Resolution," in Proceedings of the 2003 IEEE ICASSP, 2003, p. 397-400 vol.5. <<<http://www.ee.washington.edu/research/isdl/papers/thompson-03-icassp.pdf>>>.

Vargas, et al., "ELT-Based Wavelet Coding of High-Fidelity Audio Signals," IEEE Int. Sym. Circuits and Systems, Chicago, May, 1993, pp. 124-127.

Vinton, et al., "Scalable and progressive audio codec," 2001 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP, p.3277-80 vol.5.

Applicants respectfully request that the Examiner initial the cited references shown on the enclosed form PTO-1449 and that the references be made of record in the present application.

Respectfully submitted,

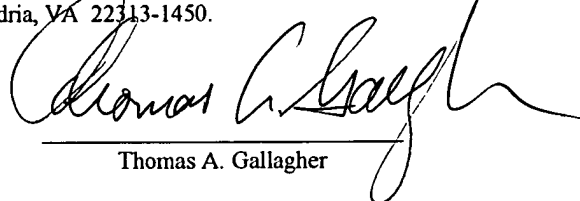


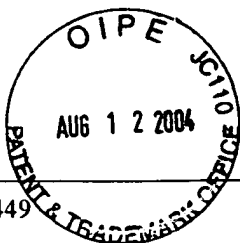
Thomas A. Gallagher
Reg. No. 24,815
601 California St., Suite 1111
San Francisco, CA 94108-2805
Telephone: (415) 989-8080
Facsimile: (415) 989-0910

Enc. PTO Form 1449
Cited references (17)
Return receipt postcard

Certificate of Mailing Under 37 CFR 1.8

I certify that this Information Disclosure Statement and all enclosed materials are being deposited with the United States Postal Service on August 9, 2004 with sufficient postage as first class mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Thomas A. Gallagher



Form PTO-1449

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U.S. PATENT DOCUMENTS

*Exam. Initial	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

*Exam. Initial	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

		Bocchieri, et al., "Correlation Modeling of MLLR Transform Biases for Rapid HMM Adaptation to New Speakers"
		Proc. of IEEE International Conference on Acoustics, Speech, and Signal Processing, pp. 2343-2346, 1996.
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		Goyal, et al., "Optimal Multiple Description Transform Coding of Gaussian Vectors," Proc. IEEE Data Compression Conference 1998, pp. 388-397.
		Greenberg, et al., "The Modulation Spectrogram: In Pursuit of an Invariant Representation of Speech," presented at ICASSP-97, Munich, vol. 3 pp. 1647-1650.
		Kryze, et al., T. Appelbaum and J.C. Junqua et al. "A New Noise-Robust Subband Front-End and Its Comparison to PLP," Proc. IEEE ASRU Workshop, Keystone, Colorado, CD-ROM (1999) << http://asru99.research.att.com/abstracts/1_6109.pdf >>.
		Malvar, "Fast Progressive Image Coding without Wavelets," IEEE Data Compression Conference, Snowbird, Utah, March 2000, p. 243-252.
		Nagai, et al., "Generalized Unequal Length Lapped Orthogonal Transform for Subband Image Coding," IEEE Transactions on Signal Processing, Vol. 48, No. 12, December 2000.

EXAMINER

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		Noll, "Digital Audio for Multimedia," Proc. Sig. Proc. for Multimedia, NATO Advanced Audio Institute, 1999 << http://www.nue.tu-berlin.de/Publikationen/papers/nato.pdf >>.
		Painter, et al., "Perceptual Coding of Digital Audio," "Proc. of the IEEE, April 2000," pp. 451--513.
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